## Annual Repot 2019-2020

Department of Electrical Engineering was established in 1962 with undergraduate programme in Electrical Engineering. In the academic year 2014-2015 we started the post graduate programme in Power Electronics and Power System and in the year 2018-2019 our Ph. D. programme has been approved by University of Mumbai. The intake for these programmes is sixty, eighteen and ten respectively.

The department has an excellent infrastructure. The strength of Department of Electrical Engineering is its faculty, students, supporting staff and alumni. Faculty of the department are motivated by their goal to transform young engineering students to skilled and proficient Electrical Engineers. The department has expertise in the field of power system, electrical machines and drives, electronics, communication engineering and control system.

### Vision

Department of Electrical Engineering aspires to produce socially responsible and dedicated electrical engineer by providing conceptual learning that enhances research based activities.

### Mission

- To educate through classroom teaching along with intensive practical activities and promote academic excellence with the help of expertise in different fields of Electrical Engineering from industries and academic institutes.
- To promote innovative ideas through seminars and projects.
- To bring awareness of social responsibilities as an Electrical Engineer

This report presents academic activities and the achievements of Electrical Engineering Department in the academic year 2019-2020

### Academic Activities:

### Curriculum:

The department has the curriculum which is in alignment with AICTE model curriculum. We are offering variety of courses under Professional and Open Electives. The professional electives cover the advanced courses of Electrical Engineering whereas open electives cover interdisciplinary courses. We have the history of an excellent placement and this curriculum will definitely further improve graduate employability. Apart from core, professional and open elective courses, we offer value added courses. These value added courses include introduction to various software like MATLAB, SCILAB, Python, ETAP etc and courses such as PLC and numerical techniques. The elective courses are useful for the students continuing higher studies whereas value added courses are helpful to them while implementing B. Tech. projects. Soft computing courses offered for S. Y. and T. Y. students are useful for understanding many Electrical Engineering concepts. Apart from regular

experiments many of our laboratory courses require to execute mini projects for completion of courses, This gives hands on experience to students which help them to complete final year projects.

**Guest Lectures:**

The following guest lectures were arranged for students and faculty during AY2019-2020. These lectures were delivered by experts from industry and reputed academic institutes to update students with advances in technology:

- .16 and 32 bit Microprocessors
- Advances in Switchgear and protection
- Power System oscillations monitoring using WAMS
- Health wellness Literacy (Faculty)

**Industry visits arranged:**

- POSOCO for B. Tech. Students.

**Workshop for students**

The department has organized the following workshops in the AY 2019-2020 with the help of industry experts

- Essentials for NX designers on29/07/2019-02/08/2019
- Android application development on 13/10/2019-15/10/2019
- Advanced Processors on 06/10/2019

**Value Added courses run by Industry( Siemens)**

Our SY and TY B. Tech. students completed the following value added courses offered by Industry

(Siemens)

1. Basic Automation

2. Basic LV switchgear and Motor

**Faculty interaction with outside world:**

The following faculty attended workshops in reputed academic institutes in AY 2019-2020

- Electomagnetic Fields and Waves Theory and Applications
- Teacing Pedagogy for Engineering Education
- Consumer Electronic Product Design, Testing, Reliability and Patenting

**Supporting staff:**

Our supporting staff Mr. Nilesh Pujari and Mr. Saudagar attended training programme on Enhancement of Work Productivity arranged under TEQIP

**Students Achievements:**

- Electrical Engineering Students Association (EESA) is active throughout the year. The students conducted and participated in many technical and exta curricular activities like SPECTRA, EESA cup etc. under the guidance of department faculty Mr. Rahul Chavan and Mr. Vishal Dake.
- Forty Three students appeared for GATE examination and Eleven students are qualified in the same.
- UG and PG students have published papers in various international conferences.

**Result Analysis of the AY 2018-2019:**

| Sr. no | Electrical Class Academic Year 2018-2019 | Passing Percentage |
|--------|------------------------------------------|--------------------|
| 1 | F.Y.B.Tech | 64.29% |
| 2 | S.Y.B.Tech | 77.39% |
| 3 | T.Y.B.Tech | 83.57% |
| 4 | B.Tech | 89.61% |
| 5 | M.Tech First Year | 83.33% |
| 6 | M.Tech Second Year | 100.00% |

**Placement:**

More than sixty percent students are placed at various companies like L and T, Siemens, Jacob Engineering, Lodha Group, TATA Power, Reliance Industries etc.

**Summary of AICTE/TEQIP Mandate Information during 2019-2020**

- Number of research conferences/seminars attended = 10
- Number of STTP/Workshops attended = 08
- Number of guest lectures arranged = 04
- Number of industrial visits organised = 01
- Number of technical publications in international conferences = 10
- Number of new courses offered in 2019-2020 = Regular: 02 Professional Electives: 01
- Number of ICC constituted for courses taught by faculty = 14 UG 04 PG
- Number of faculty completed for SWAYAM/NPTEL portal for certification course = 3
- Number of students appeared for GATE examination = 43